



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,169	09/10/2003	Lin Wang	CL1518 US CNT	3752
23906 7590 11/19/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER RABAGO, ROBERTO	
			ART UNJT 1796	PAPER NUMBER
			NOTIFICATION DATE 11/19/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**  
**NOV 19 2007**  
**GROUP 1700**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/659,169  
Filing Date: September 10, 2003  
Appellant(s): WANG ET AL.

---

Hilmar L. Fricke  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/30/2007 appealing from the Office action mailed 8/25/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 26-28, 30-33 and 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 128046.

The reference discloses a process of making a reactor blend of homopolyethylene and ethylene copolymer (pg. 3, lines 10-29; pg. 4, line 27 through page 5, line 7). The examples show that use of two dissimilar metallocenes of specific structures results in a blend of polyethylene and ethylene/olefin copolymer. The reference states that the copolymer comprises one or more olefin comonomers, and specifically names butene-1, hexene-1 and octene-1 among a total group of only four monomers. Although a working example including two olefins having an even number of carbon atoms is not included, one of ordinary skill in the art would be motivated to make a blend comprising a copolymer including the claimed monomers because the reference has stated that more than one comonomer may be used, and has specifically recommended several monomers within the claimed scope among a very small group of alternatives. The optional use of supported catalysts for gas phase use is recommended at page 10, lines 16-21.

#### **(10) Response to Argument**

Appellants cite various locations in the reference where discussion is made of using either one olefin comonomer or more than one comonomer, and state their opinion that when taken together, the reference is ambiguous regarding whether or not two or more alpha olefins are used. The reference incontrovertibly states, entirely clearly, that the disclosed process is directed to "the polymerization of ethylene and one or more

alpha-olefins” and further that “illustrative of the higher alpha-olefins are propylene, butene-1, hexene-1 and octene-1” (see EP '046 at page 4, lines 27-29 and page 5, lines 1-3). There is nothing unclear or ambiguous about these statements. The fact that the reference also discusses embodiments wherein only one comonomer is used does not negate the clearly disclosed recommendation to use more than one comonomer.

Appellants further argue that the reference teaches away from the use of more than one comonomer in view of the discussion in the reference that in general, bulkier monomers are less reactive than ethylene because of steric hindrance at the coordination site. This phenomenon is well known in coordination polymerization, especially when using metallocenes, and the reference's disclosure of such includes no express or implied recommendation to avoid the use of more than one comonomer.

Appellants further imply that the reference does not sufficiently recommend the use of more than one comonomer because no working examples of such methods have been included. However, as correctly stated by appellants, the reference disclosure is not limited to the working examples, but is effective for what it suggests to those of ordinary skill in the art. In this case, the lack of working examples cannot negate the reference author's expressly stated recommendation to use more than one comonomer. It is further noted that appellants' own specification fails to include any working examples within the scope of their claims because none includes the required separately added olefins, and therefore appellants' examples are no more descriptive of the claimed process than those of the reference.

Appellants further suggest that the rejection is based upon impermissible hindsight, wherein appellants' description has been used to formulate the obviousness rejection. This is not accepted because, as previously stated, the reference provides verbatim support for the use of more than one comonomer, and most of the specifically named monomers (three of four) are within the scope of those required in the claims. Nothing more than what is disclosed within the four corners of the applied reference is needed to support the rejection. The fact that the reference also discloses embodiments which use only one comonomer does not justify discarding all other disclosed and suggested embodiments.

Appellants further argue that the reference does not clearly state that the comonomers should have an even number of carbon atoms. However, of the specifically named comonomers, three of four have the required number of carbon atoms, and the possible combinations are: propylene-butene, propylene-hexene, propylene-octene, butene-hexene, butene-octene, and hexene-octene. Accordingly, the odds of selecting applicants' claimed combination from the list of specifically named monomers is one in two. A 50% chance of selecting the claimed monomers from the named group is clearly within the range which would be obvious to those of ordinary skill in the art.

#### **(11) Related Proceeding(s) Appendix**

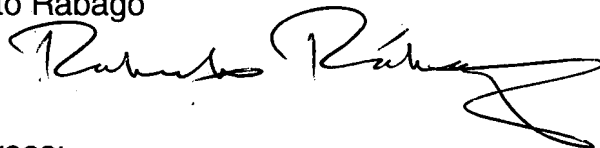
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

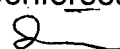
Art Unit: 1796

Respectfully submitted,


Roberto Rabago



Conferees:

 Wu, sp5, 1796

David Wu

  
Romulo Delmendo, Appeals Specialist